

IN THE CLAIMS

1. (Currently Amended) An ignition arrangement for a barrel assembly comprising:
a barrel having a plurality of projectiles axially stacked within the barrel together
with respective propellant charges for discharging the projectiles
sequentially from the barrel, said ignition arrangement including:
a cavity provided in a body of each projectile, wherein the cavity
communicates both forwardly and rearwardly of the projectile
body; and
a fuse disposed in the cavity, ~~which fuse includes~~ including a first section
formulated to burn at a pre-determined rate and a second section
formulated to provide a sealing function; whereby, in use, said,
wherein the fuse burns in the cavity to cause ignition of the
propellant charge associated with said projectile and provides at
least a partial seal within the cavity.
2. (Original) The ignition arrangement of claim 1 wherein said forward
communication of the cavity allows burning of said fuse to be triggered by combustion of
a forward propellant charge associated with an immediately preceding projectile in the
axial stack of projectiles during discharge of said preceding projectile.
3. (Previously Presented) The ignition arrangement of claim 1 wherein the fuse is
elongate and comprises three sections, a forward section, a rear section and an
intermediate section.

4. (Original) The ignition arrangement of claim 3 wherein the intermediate section of the fuse contains a fuse material formulated for burning at a predetermined longitudinal rate or velocity.

5. (Previously Presented) The ignition arrangement of claim 3 wherein the forward section of the fuse is composed of a fuse material ignitable by combusting propellant, which ignited forward section can, in turn, ignite the intermediate section of said fuse.

6. (Previously Presented) The ignition arrangement of claim 3 wherein the forward section of the fuse contained in the forward most projectile in the barrel is electrically ignited or mechanically ignited.

7. (Currently Amended) The ignition arrangement of claim 3 wherein the intermediate section is composed of a fuse material selected to burn at a pre-determined longitudinal velocity and, at or shortly before a conclusion of the intermediate material burn, the intermediate section ~~will ignite~~ the rear section of the fuse.

8. (Currently Amended) ~~The ignition arrangement of claim 3~~ An ignition arrangement for a barrel assembly comprising:

a barrel having a plurality of projectiles axially stacked within the barrel together
with respective propellant charges for discharging the projectiles
sequentially from the barrel, said ignition arrangement including

a cavity provided in a body of each projectile, wherein the cavity communicates both forwardly and rearwardly of the projectile body,
a fuse disposed in the cavity, including a section formulated to burn at a pre-determined rate, wherein the fuse burns in the cavity to cause ignition of the propellant charge associated with said projectile,
wherein the fuse is elongate and comprises three sections, a forward section, a rear section and an intermediate section,
wherein the fuse material of the intermediate section provides a sealing function, whereby the burnt material of the intermediate section provides at least a partial seal within the cavity.

9. (Previously Presented) The ignition arrangement of claim 3 wherein the rear section of the fuse, is composed of a fuse material that is ignitable by the burning intermediate section and is able, in turn, to ignite the associated propellant charge.
10. (Previously Presented) The ignition arrangement of claim 1 wherein the fuse includes a rigid sleeve containing fuse material.
11. (Original) The ignition arrangement of claim 10 wherein the rigid sleeve is retained within the cavity provided in the body of the projectile.
12. (Original) The ignition arrangement of claim 4 wherein the pre-determined longitudinal burn velocity is calculated with reference to a desired period of time between

ignition of propellant charges in said axial stack of projectiles.

13. (Previously Presented) The ignition arrangement of claim 1 wherein the projectile body is provided with a first aperture that communicates between the cavity and forwardly of said projectile body, and a second aperture that communicates between the cavity and rearwardly of the projectile body.

14. (Original) The ignition arrangement of claim 13 wherein the cavity is aligned with a longitudinal axis of the projectile.

15. (Previously Presented) The ignition arrangement of claim 13 wherein said first aperture and said second aperture are generally restricted in size compared with the internal diameter of the cavity.

16. (Previously Presented) The ignition arrangement of claim 13 wherein the first aperture is arranged to enable ignition of said forward section of the fuse by combusting propellant of an immediately preceding projectile in said axial stack.

17. (Previously Presented) The ignition arrangement of claim 13 wherein the second aperture is arranged to enable ignition of an associated propellant charge by the burning rear section of the fuse.

18. – 28. (Canceled)

29. (Currently Amended) A barrel assembly including a barrel having a plurality of projectiles axially stacked within the barrel together with respective propellant charges for discharging the projectiles sequentially from the barrel, said barrel assembly characterized by an ignition arrangement, ~~as claimed in any one or more of claims 1 to 16,~~ the ignition arrangement comprising:

a cavity provided in a body of each projectile, wherein the cavity communicates

both forwardly and rearwardly of the projectile body; and

a fuse disposed in the cavity, including a first section formulated to burn at a pre-

determined rate and a second section formulated to provide a sealing

function, wherein the fuse burns in the cavity to cause ignition of the

propellant charge associated with said projectile and provides at least a

partial seal within the cavity.

30. (Currently Amended) ~~A weapon including a cluster of barrel assemblies, each barrel assembly having a plurality of projectiles stacked within the barrel together with respective propellant charges for discharging the projectiles sequentially from the barrel, wherein each of said plurality of projectiles is as claimed in any one or more of claims 18 to 27.~~ The barrel assembly of claim 29 wherein said forward communication of the cavity allows burning of said fuse to be triggered by combustion of a forward propellant charge associated with an immediately preceding projectile in the axial stack of projectiles during discharge of said preceding projectile.

31. (New) The barrel assembly of claim 29 wherein the fuse is elongate and comprises three sections, a forward section, a rear section and an intermediate section.

32. (New) The barrel assembly of claim 31 wherein the intermediate section of the fuse contains a fuse material formulated for burning at a predetermined longitudinal rate or velocity.

33. (New) The barrel assembly of claim 31 wherein the forward section of the fuse is composed of a fuse material ignitable by combusting propellant, which ignited forward section can, in turn, ignite the intermediate section of said fuse.

34. (New) The barrel assembly of claim 31 wherein the forward section of the fuse contained in the forward most projectile in the barrel is electrically ignited or mechanically ignited.

35. (New) The barrel assembly of claim 31 wherein the intermediate section is composed of a fuse material selected to burn at a pre-determined longitudinal velocity and, at or shortly before a conclusion of the intermediate material burn, the intermediate section ignites the rear section of the fuse.

36. (New) The barrel assembly of claim 31 wherein the burnt material of the intermediate section provides at least a partial seal within the cavity.

37. (New) The barrel assembly of claim 31 wherein the rear section of the fuse, is composed of a fuse material that is ignitable by the burning intermediate section and is able, in turn, to ignite the associated propellant charge.

38. (New) The barrel assembly of claim 29 wherein the fuse includes a rigid sleeve containing fuse material.

39. (New) The barrel assembly of claim 38 wherein the rigid sleeve is retained within the cavity provided in the body of the projectile.

40. (New) The barrel assembly of claim 31 wherein the pre-determined longitudinal burn velocity is calculated with reference to a desired period of time between ignition of propellant charges in said axial stack of projectiles.

41. (New) The barrel assembly of claim 29 wherein the projectile body is provided with a first aperture that communicates between the cavity and forwardly of said projectile body, and a second aperture that communicates between the cavity and rearwardly of the projectile body.

42. (New) The barrel assembly of claim 41 wherein the cavity is aligned with a longitudinal axis of the projectile.

43. (New) The barrel assembly of claim 41 wherein said first aperture and said second aperture are generally restricted in size compared with the internal diameter of the cavity.

44. (New) The barrel assembly of claim 41 wherein the first aperture is arranged to enable ignition of said forward section of the fuse by combusting propellant of an

immediately preceding projectile in said axial stack.

45. (New) The barrel assembly of claim 41 wherein the second aperture is arranged to enable ignition of an associated propellant charge by the burning rear section of the fuse.